

REMARKS

This is in response to the Non-Final Office Action of June 26, 2009.

The Office Action opens with a series of numbered paragraphs entitled Response to Arguments.

In paragraph 3 the Examiner states that Applicants' statement regarding Day is not supported by evidence. Applicants respectfully submit that the Examiner compare Fig. 1 of the reference and Fig. 1 of the claimed invention. In the reference, the tube is generally tapered from top to bottom such that the diameter of the tube is largest at the upper end and is narrowest at the lower most end. In the claimed invention, the tube is also tapered, from top to bottom with the exception that at the lower most end, the formation 13 is wider than the body portion. Thus, if either tube is located in an opening sufficient to accommodate the body portion, in the case of the reference, the lower part would not snap fit into the opening because it would be smaller than the said opening. In contrast the formation 13 in the claimed invention is larger than the opening, and thus makes a snap fit as shown. Applicants believe that such a comparison is sufficient proof of the argument. Applicants do not understand what further evidence would be persuasive or required when the arguments are taken from an observation of the reference.

In paragraph 4, the Examiner states that Applicants have claim language which is beyond the scope of that which is argued. The Examiner asserts that Applicants have not recited that the bottom of the tube is bigger than the body of the tube so that the tube can be snap fit into the plate. The argument was recited in the Remarks in simplified language to conveniently point out the differences between the reference and the claim language set forth below with reference numbers and portions shown in bold for clarification:

a **body** portion (11) of substantially square cross section
corresponding to the cross section of the through bores (10)

a **shoulder** portion (12) near said one end of the body portion and providing the open end of the tube, **the cross section of the shoulder portion being greater than that of the body portion;** and,

a deformable **formation (13) having a cross section larger than the cross section of the bores providing a connector portion at the second end of the tube**, said formation being deformable to fit through the through bore and to extend through the bottom surface to form a snap fit engagement with said bottom surface of the multi-well plate.

According to the claim, the body 11 is square and corresponds to the cross section of the bores 10; the shoulder 12 is larger than the body; and the formation 13 is larger than the bore 10, and as a consequence the formation is larger than the body 11 which has a cross section corresponding to the bores so it can snap fit therein. This means that the bottom formation 13 is bigger than the bore and likewise bigger than the body 11.

Applicants therefore believe that the claim recites the relative sizes of the various components and is clearly within the scope of the argument. Applicants have presented new claim 15 which in yet another form clearly sets forth the relative sizes of the components in a more specific recitation.

The Examiner has rejected the claims over Day in view of Wynschnek and Verwohlt. In the rejection, the Examiner notes that the tube has an open first end and a closed second end for engaging the bottom surface of a multiwall plate. While Applicants would agree that the tube in Day can be set into a multiwall plate, nothing in Day suggests that the second or lower end would engage the bottom of the well. The bottom of the tube would be somewhere within the well plate, but no location is specified.

The Examiner asserts that the body of Day has a square cross section. Day has a circular cross section as shown in Figs. 5A and 7. The claimed

invention has a square cross section as shown in Figs 2, 3, and 4. The square cross section in Day as asserted by the Examiner seems to be taken along an axial cross section taken along the vertical central axis. Day has a tapered tube which in vertical cross section would be truncated cone. Applicants therefore do not concede that Day has a square cross section. However, new claim 16 recites the directional configuration of the tube and bore, i.e. the cross section of the bore extends between the upper and lower surfaces of the plate and the square cross section of the tube is located in the bore. This distinguishes the recitation more fully from the vertical cross section of shown in Fig. 2 of Day.

The Examiner asserts that Day has a shoulder near one end, which shoulder is greater than the body as shown in Fig. 1, 13 and 14. Applicants agree regarding Figs. 13 and 14, but other than the taper feature of Fig. 1, the drawing is not clear.

The Examiner asserts that Day discloses a deformable formation (22) providing a connector portion at the second end of the tube. The specification of Day at [0078] says that the indentation 22 on the rim of the cap aids in removal and placement thereof. Applicants assert that even though it may be possible with hindsight and in under specific conditions, not shown or suggested in the references, for the indentation to result in a forced or snap fit (with a feature unspecified), the stated purpose of the indentation is otherwise. Examiner asserted during a telephone conversation conducted August 27, that the recited purpose of the indentation 22 in Day is a mere statement of intent. Applicants responded that the Examiner is obliged to view the reference as a whole, and in that context, the indentation is not a snap fit formation. The Examiner replied that the combination must be viewed as a whole. Here, Applicants disagree, because as set forth in MPEP 2141 it is the reference as a whole which must be considered (not the combination).

Applicants do not deny that the tubes in Day may be use with a rack. However, as set forth in the specification of the present application at page 5, lines 13-14 states: "The connector portion 13 prevents the tube 10 from being lifted out of the bore 10 unintentionally."

Verwohlt discloses a device for securing tubes in a plate which has fingers which engage the bottom of the tube.

Applicants have previously argued that the arrangement of Verwohlt is not applicable to the claims, because the snap fit asserted by the Examiner is tied to flexible fingers secured in the plate, and is totally different from the claimed features. All that can be said is that the indentation 22 in Day resembles channel 22 in Verwohlt. However, if a snap fit is suggested, it is suggested only by the flexible fingers in Verwohlt. In addition, the flexible finger in Verwohlt moves aside when the tube is inserted, thereby temporarily **enlarging** the opening in the tray. This is different from the claimed invention where the bore does not become enlarged as the tube is inserted. Nothing in Day or Verwohlt would suggest that the indentation 22 in Day would be properly adapted to snap fit in an opening smaller than the part itself as set forth in the claim.

It appears that the Examiner considers Fig. 2 of Day to be relevant but Applicants wonder if he has ignored the fact that claim 1 requires a deformable formation at the end of the tube which has a cross-section larger than the cross-section of the bores, and at the same time requires the body portion to correspond to the cross-section of the bores. In other words, the claimed snap-fit formation has a part which has a cross-sectional dimension greater than that of the body portion of the tube so that it can snap behind (or below) the bottom surface of the well plate. Note that because the well plate has bores, the 'edge' under which a tube 'snap fits' is that defined at the bottom of the bore and by the surrounding lower surface of the well plate. Day clearly does not have a construction like that, and if one looks at

Fig. 1 of Day one can see that the bottom end of the tube is actually narrower than the tube and the cap merely fits snugly over the end of the tube. In Fig. 10 of Day the cap is held by the snap fit arrangement 50-51, which is likely to yield if the tube is pulled. So in both cases removing the tube will separate it from the cap. (This of course assumes the tube in Day could in fact be secured by snap fit in the tray, which Applicants do not concede.) In other words Day cannot do what is required in the claims of the application. Applicants assert that this alone is one difference and a sufficient reason why Day does not anticipate the claim nor is the claim obvious when combined with the secondary references.

New claim 17 claims that the snap fit configuration prevents unintentional separation of the tube and plate, i.e. the tube may be snap fit into the plate and it may be removed as well. In this connection, tube in Day would not be removable (if held by some attachment feature as proposed by the Examiner) by simply pulling the tube out of the plate, because the indentation 22 would not yield as easily as the snap fit 50-51 and the cap would most likely be retained in the plate if the tube were to be removed

Applicants also point out that the groove or indentation 22 in Day cannot act as a snap-fit portion that would allow removal of the tube again, owing to the shape of the cross-section of the groove 22 itself which, because it is a recess with (at least on the lower side) a relatively 'sharp' sidewall (i.e. one at substantially 90 degrees to the side wall of the tube). This effectively prevents anything engaged in the groove from being removed without distortion/damage. Note, in Verwohlt the channel has a tapered surface 26 and a flat surface 25. The former allows the tubes to be removed over the tapered surface and the flat surface acts as a stop preventing the tube from moving further into the opening. Similarly the indentation 22 in Day would function in the same way. Once the finger

moves beyond the lower rounded end in Day, a finger would enter the indentation and lock in position, preventing the tube from being removed.

This goes to the essence of the matter which is that Day is clearly not designed to provide a snap fit with the well plate via the cap 13. Indeed another reason why this is clearly the case is that the cap 13 is a snap fit onto the bottom of the tube proper of the tube, and the indentation or groove 22 is as noted above to aid removal and placement of the cap on the tube. Thus, if one looks at Figs. 8,9 and 10 of Day (which is the only example showing how the snap fit of the cap on the tube is achieved) and compares this with Fig. 2 of Day, one can see that **if the groove 22 were to be used for a snap fit to the well plate, the cap would obviously remain in the well plate when the tube was thereafter removed.**

Note that the snap fit components 50, 51 which are used to secure the cap 43 to the end of the tube in Fig. 10 are rounded like a conventional detent in order to allow snap-on and snap-off of the cap 43 from the end of the tube. Compare this (which is the only snap fit component referred to in Day) with the shape of groove 22. In other words, Day itself teaches that a snap fit would be different than what is asserted by the Examiner. The indentation 22 in Day is completely unsuited to do the job the Examiner suggests, and Day actually teaches away from what is recited in the claims. While the recited purpose of the indentation 22 is a statement of intended use in Day, this is reinforced by the clear language concerning the snap fit function of elements 50-51 discussed at line 11 of paragraph [0096]. In other words, Day teaches a specific arrangement which is not suited for a snap fit, and Day teaches a snap fit arrangement which is different from the claim language. Thus Day taken as a whole teaches away from the claimed recitation by providing a cap with a detent of a first construction for facilitating a snap fit between the tube and the cap; and an indentation or groove for facilitating removal of the cap from the tube having a different

stated purpose and design and having nothing to do with a snap fit configuration. The components are separately described and differently configured as to function. One component allows for a snap fit, and the other would frustrate such function.

The Examiner's argument regarding the obviousness of the main claim, although it relies on Day and the two secondary references, effectively relies on Day for the disclosure of everything that matters in the claim, and as mentioned above, Day simply does not have all the features that are recited in claim 1. Applicant's understanding is that unless the Examiner can show that all the features of the claim can be found in the combination of prior art documents to which he refers, his rejection cannot stand, especially as all the teaching about engagement between the tubes and the well plates is directed to this being achieved at the top of the tubes rather than at the bottom.

New claims 15-18 set forth additional features and are believed to be patentable over the art for the reasons set forth herein.

It is therefore respectfully requested that the Examiner reconsider his rejection of the claims, the allowance of which is earnestly solicited.

If additional fees are required, the Director is authorized to charge Deposit Account 504147 or credit any overpayment thereto.

Respectfully submitted,
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